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SPECIAL FEATURE

ACCESSING USEFUL INFORMATION:
CHALLENGES IN HEALTH POLICY AND PUBLIC HEALTH

A NATIONAL FORUM HELD AT THE NEW YORK
ACADEMY OF MEDICINE, MARCH 23, 1998

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HEALTH: AN INTRODUCTION TO
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Information is a prerequisite for improving health. The rapid expansion of health information in today's electronically networked environment has the potential to benefit health professionals, health organizations, and the public. The mere existence of information—whether in print or electronic form—does not make it useful, however. The existing base of information can enhance decision making only if users are aware of what is available, can readily identify documents that are relevant and of sufficient quality to meet their needs, and can obtain that information in a timely manner. Building on advances in telecommunications and computer technology, substantial progress has been made in improving the ability of clinicians, researchers, and consumers to access information in the biomedical literature. Moreover, the growing interest in evidence-based medicine is stimulating the development of methodologies and criteria to assess the quality of this literature. Yet, while these activities are extremely valuable, they are not sufficient to meet the information needs of two other sectors with functions that are essential to improving health: the public health and health policy communities.

For several reasons, improving access to useful information is much more

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challenging in public health and health policy than in biomedicine. For one, professionals in these fields are extremely diverse in terms of discipline, extent of training, and work environment. Even more important, the information they need to carry out their work encompasses a broad range of subjects and sources. In addition to traditional bibliographic material (i.e., published books and refereed journals), professionals in public health and health policy seek statistical and epidemiological data, legal and legislative documents, information about community resources, and an amorphous, and sometimes ephemeral, "grey literature," comprising reports, policy statements, articles, and newsletters from federal, state, and local governments, commissions and task forces, think tanks, academic institutions, foundations, professional and trade associations, and the trade and regular press. The quality of this information depends on multiple factors, including the accuracy and reliability of raw data, the appropriateness of methodology, intrinsic and extrinsic sources of bias, and timeliness.

THE NATURE OF THE PROBLEM

The practical impact of current limitations in meeting information needs in public health and health policy was revealed in a recent informal survey that The New York Academy of Medicine conducted earlier this year. Questions were posed to public health, health policy, and library science professionals working in a range of public agencies and private organizations.* Their responses illuminated several types of problems.

DIFFICULTY FINDING RELEVANT INFORMATION

First, professionals in public health and health policy—like many others—are "drowning in information." In spite of the vast amount of information that is available, many respondents noted that they are not aware of the full range of

*These organizations included the Agency for Health Care Policy and Research, the American Medical Association, the American Public Health Association, the Association for Health Services Research, the Association of Schools of Public Health, the Association of State and Territorial Health Officials, the Centers for Disease Control and Prevention, the Coalition for Networked Information, the Informatics Department at Columbia University, Grantmakers in Health, the IBM Foundation, the Indiana University School of Library and Information Science, the Information for State Health Policy Program, the Health Resources and Services Administration, the National Association of County and City Health Officials, the National Institutes of Health, the National Library of Medicine, the National Network of Libraries of Medicine, The New York Academy of Medicine, the New York City Department of Health, the New York State Department of Health, the Public Health Foundation, the Rand Corporation, the University of California–San Francisco Health Policy Institute, and the University of North Carolina School of Public Health.

information relevant to their work. A general problem relates to the organization and classification of information in public health and health policy. Because much of the information that professionals in these fields need is not organized well, they have difficulty knowing where to look or what categories to use to search. Moreover, since the domain names of Web sites are not intuitive, it is difficult for professionals to find relevant sites. Many respondents commented on the need for better taxonomies to classify information and to use in search engines; current systems either give them too much information or incorporate restrictions that miss important documents or sources. They also noted the need for "smart" systems that customize information to the reference frame of end users.

Identification and retrieval of the grey literature, which is extremely important to professionals in public health and health policy, posed a particular problem for respondents. Many highlighted the lack of formal indexing of the grey literature in most bibliographic databases and the absence of a clearinghouse, Internet listing, or uniform search strategies for this literature. Without such supports, awareness of relevant analyses in the grey literature often depends on whether health professionals have the right contacts to get the information. Some respondents said that, if a report is not mailed directly to them or if they are not informed of it in some other way, they are not aware that the information exists. To the extent that getting such information is "catch as catch can," professionals in public health and health policy may not be aware of what they don't know.

DIFFICULTY IDENTIFYING AND USING INFORMATION RESOURCES

In addition to being unaware of information relevant to their work, respondents also noted difficulty identifying resources for finding such information. Many commented that they or their colleagues were unaware of existing databases (including major resources such as HealthSTAR), current studies in their own discipline, information in other disciplines, and useful support services (such as document delivery and on-line full text).

Even if professionals in public health and health policy can find information resources, some have difficulty using them. One factor accounting for this problem is a lack of connectivity to the Internet, a handicap that currently hinders 50% of local health departments in the US. Other barriers include a lack of access to computers when and where professionals need information; inadequate skills for using computers or searching on-line databases effectively; insufficient time,

staff, and funds to search for information or to pay for information or support services; problems communicating information needs to librarians and other information specialists; and problems obtaining targeted information in a timely manner.

DIFFICULTY ASSESSING THE QUALITY OF INFORMATION

Going beyond the access problem, respondents also highlighted difficulties assessing whether the information they obtain is of sufficient quality to use. One issue they raised relates to the lack of established criteria and processes for judging the quality of public health and health policy information. Currently, there is no agreed-upon definition of what constitutes quality in these areas, and expert syntheses of available evidence are much less common than in biomedicine. Moreover, because many sources of public health and health policy information are in the grey literature, the peer-review process often does not apply to them. Unless public health and health policy professionals are able to find an expert or authoritative source they can trust, they are left to assess by themselves the quality of the information they obtain. Doing so requires time, however, and skill that few of these professionals have; even if they do, there is rarely enough supporting information—particularly on the Internet—to perform such an assessment properly. Respondents voiced particular concerns about the quality of analyses performed on proprietary data and those in new, rapidly growing fields, such as performance measurement. In addition, they questioned the objectivity of studies performed by interest groups or supported by partisan or ideological funders. While respondents sought better criteria and processes for assessing quality, they also highlighted the trade-offs inherent in filtering information on this basis. Since the quality required of information varies according to the task at hand, limiting searches to highly reputable sources can result in the loss of valuable information that might not otherwise be available.

COMMUNICATION ISSUES

Finally, respondents to the survey noted the importance of communication to public health and health policy and the relationship of communication to access and quality issues. Ultimately, the effectiveness of public health and health policy professionals depends on their ability to communicate the results of their work to those who need to know: policymakers, other professionals, community organizations, and the general public. Consequently, efforts to promote access to useful public health and health policy information needs to be directed to these groups, as well as to health professionals.

OVERVIEW OF FORUM PAPERS

The papers presented at the Academy's March 23, 1998 forum were designed to elucidate further the information needs of professionals in public health and health policy and to provide a framework for taking effective action.

The first paper, by O'Carroll and colleagues, presents preliminary results of two studies that are assessing information needs and information acquisition practices of professionals in public health and health policy. The first, spearheaded by the University of Washington School of Public Health and Community Medicine, the Washington State Department of Health, and the Centers for Disease Control and Prevention, focuses on practitioners in local health departments in the state of Washington. The second, designed and carried out by the National Library of Medicine's National Information Center on Health Services Research and Health Care Technology, queried professionals engaged in health services policy making and policy analysis at federal, state, county, and city levels.

In the following paper, Lynch evaluates the potential of the networked information environment to support the public health and health policy communities. Looking at the World Wide Web in two ways—as a collection of digital documents and as an interface to a range of interactive resources—he identifies the capabilities and limitations of electronic information access, paying particular attention to specific types of information that are important in public health and health policy. He also considers the roles of the networked information environment in facilitating communication and collaboration, which are of great importance in public health and health policy.

The next two papers, by Rambo and by Cahn, Selden, and Auston, provide a comprehensive overview of existing information resources—mostly electronic—that are of particular value in supporting the work of professionals in public health and health policy. Focusing on the needs of public health practitioners, Rambo describes sources of information and the types of information that can be found at local, state, and national levels. Cahn and her colleagues identify Web-based resources that are useful in developing health policy and in providing information about existing health policy at various levels.

The next set of papers addresses the quality issue. Gray and Bialek each present concrete examples of problems that professionals in health policy and public health face in assessing the quality of information and the ways they currently deal with these problems. Next, Bradley elucidates a practical framework for thinking about the quality of public health and health policy information. Clarifying what judgments about information quality depend on and how these

judgments are made, she lays the groundwork for developing a set of useful quality criteria in these areas.

The last set of papers move us toward constructive action. Humphreys, from the National Library of Medicine, and Ross, from the Centers for Disease Control and Prevention, describe the perspectives and agendas of two federal agencies that have played central roles in improving information access in public health and health policy. The final paper, reporting on recommendations arising from a strategy session following the national forum, lays out specific action steps for addressing high-priority problems.